IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

PEGASUS DEVELOPMENT CORPORATION and PERSONALIZED MEDIA COMMUNICATIONS, L.L.C. Plaintiffs, v. DIRECTV, INC., HUGHES ELECTRONICS CORPORATION, THOMSON CONSUMER ELECTRONICS, INC., and PHILIPS ELECTRONIS NORTH AMERICA CORPORATION, Defendants.	)	C.A. No. 00-1020 (GMS)

ORDER CONSTRUING THE TERMS OF U.S. PATENT NOs. 4,965,825, 5,109,414, 5,233,654 & 5,335,277

After having considered the submissions of the parties and hearing oral argument on the matter, IT IS HEREBY ORDERED, ADJUDGED, and DECREED that, as used in the asserted claims of U.S. Patent Nos. 4,965,825 (the "'825 Patent"), 5,109,414 (the "'414 Patent"), 5,233,654 (the "'654 Patent") & 5,335,277 (the "'277 Patent"):

The '825 Patent

1. The term "embedded signals" is construed to mean "signals that contain digital information (but are not limited to digital information) and that are associated with the information transmission in such a way that (1) they cannot be

inadvertently separated from that transmission and (2) they occur at precise times in that transmission."[1]

2. The term "recording the receipt of and passing to said devices of said embedded signals" is construed to have its plain and ordinary meaning except the records or records must unambiguously indicate that said signals are received and passed.[2]

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[1] The court adopts the defendants' proposed construction of this term in light of the specification's statement that:

> The present invention employs signals embedded in programming. Embedded signals provide several advantages. They cannot become separated inadvertently from the programming and, thereby, inhibit automatic processing. They occur at precise times in programming and can synchronize the operation of receiver station apparatus to the timing of programming transmissions. They can be conveniently monitored. In the present invention, the embedded signals contain digital information that may include addresses of specific receiver apparatus controlled by the signals and instructions that identify particular functions the signals cause addressed apparatus to perform.

('825 Patent at 8:5–17; JA00027.) While the plaintiffs are correct that "[a]n invention may possess a number of advantages or purposes, and there is no requirement that every claim directed to that invention be limited to encompass all of them," the court does not believe it has improperly limited the claim at issue here. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.2d 1364, 1370 (Fed. Cir. 2003). The relevant specification language is definitional rather than descriptive. *Id.* at 1369 ("Interpretation of descriptive statements in a patent's written description is a difficult task, as an inherent tension exists as to whether a statement is a clear lexicographic definition or a description of a preferred embodiment."). While this portion of the specification does relate certain "advantages" of the invention, the "advantage" discussed here is the very use of embedded signals—the written description then proceeds to describe precisely what those signals actually are. ('825 Patent 8:5–17; JA00027.) The specification thus provides a definition and not just one particularly advantageous form of embedded signals. *See AsraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042, 1051 (Fed. Cir. 2010) ("'[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs.' The specification need not reveal such a definition explicitly." (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005))).

[2] The court largely agrees with the plaintiffs that this term does not require construction and can be given its plain and ordinary meaning. "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (internal citations omitted).

The reexamination record, however, reflects a clear disavowal of claim scope by the plaintiff, Personalized Media Communications, LLC ("PMC"), and requires the second portion of the court's construction. During Reexam 90/006,536, the examiner rejected Claim 14 over the Briggs and Tazawa prior art. (Reexam 90/006,536, Feb. 4, 2003 Reply Brief at 22; JA001504–05.) PMC responded that:

> The Examiner does not assert that [the prior art references] actually show a step of recording the receipt of and passing to devices of an embedded signal. Rather, the Examiner argues that in [the prior art references] instructions are sent to receiver locations to control the operation of various devices located at the receiver locations. The Examiner asserts that the status signals indicating the current status of the controlled devices are recorded and transmitted. However, recording the current status of a controlled device is not recording the receipt of and passing to the devices of

3. The term "decrypting [an encrypted information transmission]" is construed to mean "using digital key information to decode a digital or analog information transmission that has been encoded to prevent unauthorized access. The decrypting step may be performed by a conventional descrambler that descrambles analog television transmissions and is actuated by receiving digital key information. The decrypting must be of the entire information transmission that is recited in step (b) of claim 14."[3]

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any signals. The Examiner states that by recording that the desired change in status of a device has occurred, one has necessarily recorded the fact that the instruction was sent to cause the change in status. This is incorrect as the status may have changed due to outside influences.

(*Id.*) The court views this statement as an unambiguous disavowal. PMC argued that recording the status change of a device that might indicate the prior receipt and passing of an embedded signal is not the same as recording the actual receipt and passing of the embedded signal—a status change record might be triggered by external forces and does not necessarily indicate that the required receipt and passing occurred. This is the clear import of PMC's argument and, contrary to the plaintiffs' present assertions, formed the basis for the BPAI's reversal. (Reexam 90/006,536, Decision on Appeal at 58–59; JA001597–98 ("The issue is whether Briggs or Tazawa teach step '(f) the step of recording the receipt of and passing to said devices of said embedded signals' in claim 14 . . . Measurement of a condition which is not directly controlled by the device says nothing positive about whether a signal was actually received and passed to the device because the condition could be due to other external factors.").)

[3] The court adopts the defendants' proposed construction of this term. The parties dispute two aspects of that definition: (1) whether the term includes descrambling of analog television transmissions and (2) whether "[t]he decrypting must be of the entire information transmission that is recited in step (b) of claim 14."

With regard to the analog television transmission issue, the court is guided by the following specification language:

> It is obvious to one of ordinary skill in the art that the foregoing is presented by way of example only and that the invention is not to be unduly restricted thereby since modifications may be made in the structure of the various parts without functionality departing from the spirit of the invention . . . . And, for example, the "Wall Street Week" transmission may be of conventional analog television, and the decryptors, 107, 224, and 231, may be conventional descramblers, well, known in the art, that descramble analog television transmissions and are actuated by receiving digital key information.

('825 Patent at 173:30–47; JA000110.) The plaintiffs argue that this language merely indicates "that if an analog television transmission were to be used instead of a digital television transmission, the signal must be 'descrambled,' not 'decrypted,' and that 'conventional descramblers' must replace the 'decryptors' defined in the embodiment." (D.I. 664 at 4.) This, however, is hardly the most natural understanding of the specification. Rather, a plain reading of the above language suggests that the patentee's understanding of "decryptors" was sufficiently broad to *encompass* "conventional descramblers" used to "descramble analog television transmissions." Indeed, the plaintiffs endorsed this very interpretation during claim construction briefing in 2003. (D.I. 663, Ex. A at 66; D.I. 662 at 3–4.)

While the specification does generally reference the encryption and decryption of digital transmissions, the plaintiffs fail to identify an explicit exclusion of analog transmissions. In light of this failure and the express

The '414 Patent

1. The term "switch means" is construed pursuant to 35 U.S.C. § 112, ¶ 6. The claimed function is "receiving output from a plurality of receiver/distribution means" and "directing a selected portion of said programming received from one or more said receiver/distribution means to an associated output device." The

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statement referenced above, the court cannot find that "decrypting" is limited to digital transmissions. As the plaintiffs argued in 2003, "'decryption,' as used in the specification, may in some circumstances include certain conventional descramblers." (D.I. 663, Ex. A at 67.)

The parties also dispute whether "[t]he decrypting must be of the entire information transmission that is recited in step (b) of claim 14." The plaintiffs reject this requirement and suggest that the defendants "seek to improperly read in an antecedent basis" because "Claim 17's use of the indefinite article 'an' and Claim 14's lack of the modifier 'encrypted' when referring to 'information transmission' demonstrate that the two terms are not the same." (D.I. 655 at 6.)

The court cannot agree. While the use of the article "an" rather than the modifier "said" may sometimes indicate that two terms have different meanings, a plain reading of the claims here suggests otherwise. As the defendants point out, the patentee had little choice but to use the indefinite article "an," given that Claim 17's "*encrypted* information transmission" did not appear in Claim 14. Claim 14 recites only an "information transmission," so it would have made little sense for the patentee to use the word "said." The court also finds that the case cited by the plaintiffs on this point to be unconvincing—application of that decision's logic to the present claim terms merely suggests that "encrypted information transmission" and "information transmission" have different meanings, an undisputed conclusion here. *See Hill-Rom, Inc. v. Ohmeda Med.*, 34 F. App'x 733, 736 (Fed. Cir. 2002).

The court is also persuaded by the '825 Patent's reexamination history. In Reexamination 90/010,709, Claim 17 was initially rejected as anticipated by prior art Bond, U.S. Patent No. 4,390,898. (Reexam 90/010,709, Apr. 28, 2010 Office Action at 12; JA001682.) The patentee argued that Bond only taught decrypting embedded signals, while Claim 17 involved decrypting an entire information transmission. (Reexam 90/010,709, Jan. 25, 2010 Owner Statement at 8–10; JA001663–65.) In later withdrawing his rejection of Claim 17, the examiner explained that "[t]he cited prior art fails to teach or suggest the limitations of claim 17 requiring 'the step of decrypting an encrypted information transmission' where the information transmission is defined by parent claim 14 as having been demodulated from a carrier transmission . . . Instead, the cited prior art teaches the decryption of signals embedded within the information transmission." (Reexam 90/010,709, Notice of Intent to Issue Reexamination Certificate ("NIIRC") at 3; JA001700.) The court appreciates the plaintiffs' point that the patentee never expressly linked the "encrypted information transmission" of Claim 17 to the "information transmission" recited in step (b) of Claim 14 and acknowledges that the examiner's statement might therefore be viewed as "unilateral." (D.I. 664 at 4.) Nevertheless, the court views the patentee's reexamination arguments as at least suggesting a link between the two terms and further believes that the examiner's statements have some independent evidentiary value in assessing claim meaning. *See Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005) ("Statements about a claim term made by an examiner during prosecution of an application may be evidence of how one of skill in the art understood the term at the time the application was filed."). Taken together with the dependent relationship between Claims 17 and 14, the court believes these considerations recommend the defendants' proposed construction.

corresponding structure is matrix switch 75, shown in Figure 6A and which the specification describes at 182:22-25 and 184:17–187:30.[4]

2. The term "matrix switch means" is construed to mean "a switch with multiple inputs and multiple outputs that is electronically controlled and capable of interconnecting any given input with any given output."[5]

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[4] The parties rightly agree that this term should be construed under 35 U.S.C. § 112, ¶ 6. They also correctly agree as to the claimed function and that matrix switch 75 from Fig. 6A represents corresponding structure. The only remaining dispute is whether matrix switch 258 from Fig. 7 also constitutes corresponding structure. The court finds that it does not.

In essence, the defendants contend that matrix switch 258 from Fig. 7 cannot possibly represent corresponding structure for this term from Claims 1 and 2, since those claims are directed toward "intermediate transmission stations" and Fig. 7 depicts an "ultimate receiver station." (D.I. 657 at 6.) In support of this position, the defendants contended at oral argument that the system represented in Fig. 7 cannot satisfy the limitations of Claims 1 and 2 requiring that the receiver/distribution means input the programming to both a switch means *and* a plurality of "detector means." (D.I. 675 at 74–76.) While the plaintiffs apparently dispute this point, they did not brief the issue nor were their statements at the *Markman* hearing persuasive. The plaintiffs suggest that signal processor 200 and micro computer 205 of Fig. 7 represent or include the requisite detector means, (*Id.* at 92), but the court's examination of the diagram reveals that none of the identified receivers actually distribute programming to those detectors, ('414 Patent at Sheets 3–4, 15; JA000220–21, JA000232). The court also notes that the plaintiffs did not argue that matrix switch 258 constituted corresponding structure during 2003 claim construction briefing, (D.I. 449 at 30; JA004984), and that both the PTO and Special Master Harmon identified only matrix switch 75, (Reexam No. 90/011,744, NIIRC at 8; JA002156; D.I. 449 at 30; JA004984).

For the above reasons, the court cannot find the necessary "clear link" between the claimed function and matrix switch 258.

[5] The plaintiffs contend that the term "matrix switch means" should be construed as "an electronically controllable device capable of interconnecting any given input with any given output." (D.I. 655 at 6.) The defendants suggest that "[t]he recited matrix switch is a conventional matrix switch known in the art at the time of filing, i.e., a switch with multiple inputs and multiple outputs that is electrically controlled to transfer the programming received at any input to any selected output." (D.I. 654, Ex. A at 4–5.) While the parties' proposed construction are facially similar, briefing and oral argument reveal three areas of divergence: (1) the plaintiff contests the description of the matrix switch as "conventional," (2) the defendants emphasize that there must be *multiple* inputs and outputs; and (3) the parties dispute whether the switch must transfer programming.

As an initial matter, the court rejects the defendants' proposed "conventional" modifier. The court agrees with the plaintiffs that including the adjective "conventional" is likely to confuse a jury. (D.I. 664 at 6.) Additionally, the defendants' counsel indicated at oral argument that "conventional" was not central to their proposed construction. (D.I. 675 at 77–78.)

On the second point, the defendants maintain that the matrix switch must have multiple inputs and outputs. (D.I. 675 at 77.) In their view, the plaintiffs' proposed construction would improperly "read on a switch that had one wire in and one wire out and either connected them or not." (*Id.*) The court agrees that one of ordinary skill in the art would understand a matrix switch to require multiple inputs and outputs. *See, e.g. IEEE Standard Dictionary of Electrical and Electronic Terms* 531–32 (3d ed. 1984) (defining "matrix (electronic computers)" as "[a] logic network whose configuration is an array of intersections of its input-output leads, with elements connected at some of these intersections"); *Academic Press Dictionary of Sci. & Tech.* 1326 (1992). Additionally, the court notes that the plaintiffs did not directly contest this language in their briefing or at oral argument and actually indicated that

3. The term "a first processor means operatively connected to said plurality of detector means for identifying each detected control signal as having been detected by a particular detector" is construed pursuant to 35 U.S.C. § 112, ¶ 6. The claimed function is "identifying each detected control signal as having been detected by a particular detector means." The corresponding structure is processors 20, 39, 26, 71, and 14A, shown in Figures 2A, 2D and 6A, and which the specification describes at 17:40-44, 22:25-51, 180:62–181:60, 182:63–183:12 and 188:33-37 to be configured to attach source mark information to each detected control signal in the programming, thereby identifying the particular detector means that detected the control signal.[6]

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their "main problem" was with the use of the word "conventional." For these reasons, the court includes the multiple inputs and outputs" language in its construction.

Finally, the parties dispute whether the matrix switch must "transfer the programming" as required by the defendants' proposed construction. While neither side focused much on this particular issue, the defendants appear to extract their definition from several statements in the specification referencing the "transfer" of outputs or programming by matrix switch 75. (D.I. 657 at 7.) In doing so, the defendants have improperly introduced a limitation from the specification into the claim language. *See, e.g.*, *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1331–32 (Fed. Cir. 2004). The court thus rejects this condition and omits it from the above construction.

[6] The parties dispute whether this term should be construed pursuant to § 112, ¶ 6. The court finds that it should be. There is a presumption that a term falls within § 112, ¶ 6 where the claim employs the word "means." *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 1257 (Fed. Cir. 1999). While this presumption may be overcome when the claim recites sufficient structure for performing the function, the court does not believe that is the case here. *Id.* As an initial matter, the plaintiffs' have failed to present persuasive evidence that a general purpose processor without special programming could perform the function of "identifying each detected control signal as having been detected by a particular detector means." The plaintiffs rely only on the defendants' former position and Special Master Harmon's construction. (D.I. 655 at 7–8.) Unfortunately, the Special Master's Report and Recommendation identifies no basis for his conclusions on this issue. (D.I. 449 at 34; JA004988.)

Additionally, a number of decisions construing similar "processor" or "computer" terms suggest that a general processor will rarely constitute sufficient structure to perform a claimed function. In an oft-cited line of cases, the Federal Circuit repeatedly skipped over the threshold question of whether the limitation should be construed pursuant to § 112, ¶ 6 and focused its attention on the question of whether sufficient structure was disclosed in the specification to avoid indefiniteness. *See Ergo Licensing, LLC v. Carefusion 303, Inc.*, 673 F.3d 1361 (Fed. Cir. 2012); *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303 (Fed. Cir. 2011); *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328 (Fed. Cir. 2008). These cases suggest and *Ergo* directly states that is only in "rare circumstances" that "a general purpose computer without any special programming" will be able to perform a recited function. 673 F.3d at 1365.

4. The term "a second processor means for controlling the output directing function of said switch means" and the term "a second processor means for controlling the output function of said switch means" are construed pursuant to 35 U.S.C. § 112, ¶ 6. The respective claimed functions are "controlling the output directing function of said switch means" and "controlling the output function of said switch means." The corresponding structure is signal processor 71 and cable program controller & computer 73, which are shown in Figures 6A and 6B, and which the specification describes at 184:1-64 to be configured to use the detected control

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Indeed, Magistrate Judge Everingham's construction order in *Personalized Media Commc'n, LLC v. Motorola, Inc.*, No. 2:08-CV-70-CE (E.D. Tex.), recognizes as much. While he found that several claims of the '654 Patent reciting "processor means . . . for processing" did not invoke § 112, ¶ 6 because any general processor could perform the very basic claimed function, he proceeded to determine that various claim terms of the '414 Patent did fall under ¶ 6. Specifically, Magistrate Judge Everingham examined Claims 7, 10, and 13 of the'414 Patent, which recite:

> (1) a *processor means* for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means; (2) a *processor means* for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means in response to said control signals or on local command; and (3) a *processor means* for controlling the output functions of said matrix switch means and the transfer functions of said buffer means in response to said control signals.

(JA005656.) The court found that "the claim language requires that the 'processor means' control specific functions of the claimed invention—that is, the 'processor means' must do more than simply process." (JA005657.) Magistrate Judge Everingham thus concluded that the § 112, ¶ 6 presumption was not overcome and construed the terms as means-plus-function limitations. (*Id.*) Similarly, the terms at issue here include specific functions that require the "processor" recited in the claim language to do more than simply "process." Finally, the court notes that the PTO also construed this limitation pursuant to § 112, ¶ 6. (JA002156.)

The court agrees with the defendants' assessment of corresponding structure. It comports with the PTO's own determination, (Reexam No. 90/011,744, NIIRC at 8; JA002156), and is consistent with the court's earlier finding that Claims 1 and 2 are directed toward an intermediate transmission station rather than an ultimate receiver station. Furthermore, in requiring that the structure "be configured to attach source mark information to each detected control signal in the programming, thereby identifying the particular detector means that detected the control signal," the defendants' statement of formulation incorporates disavowing statements made by PMC during reexamination. (D.I. 657 at 7–8; JA002138–40.) While the doctrine of prosecution disclaimer does not apply where the alleged disavowal is ambiguous, *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1327–28 (Fed. Cir. 2003), the court reads PMC's reexamination arguments as clearly and unequivocally limiting claim scope, (Reexam No. 90/011,744, Nov. 2, 2011 Owner Statement at 11–13; JA002138–40), and the PTO relied on these statements to overcome prior art, (Reexam No. 90/011,744, NIIRC at 15; JA002163).

signals to operate the switch means.[7] The parties are instructed to submit supplemental briefs as detailed below.

5. The terms "a processor means for controlling the output functions of said matrix switch means and the transfer functions of said storage/transfer means" and "a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means" are construed pursuant to 35 U.S.C. § 112, ¶ 6. The respective claimed functions are "controlling the output functions of said matrix switch means and the transfer functions of said storage/transfer means" and "controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means." With respect to "controlling the output functions of the matrix switch

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[7] For substantially the same reasons discussed in reference to the "first processor means" term, the court believes this term should be construed pursuant to § 112, ¶ 6. The court also finds that the parties' agreed upon function is appropriate.

With regard to corresponding structure, the parties properly agree upon signal processor 71 and cable program controller & computer 73, as depicted in Figures 6A and 6B, and the court rejects the plaintiffs' proposal of processors 200 or 205 given its above conclusion that that Claims 1 and 2 are directed toward an intermediate transmission station rather than an ultimate receiver station. The parties, however, wholly ignore the plaintiffs' proposal of processors 20 and 26. As such, the court will order limited supplemental briefing on this point. The parties are instructed to submit letter briefs of no more than one (1) page within ten (10) days of this Order.

Finally, the defendants contend that the corresponding processors must "be configured to use the detected control signals to operate the switch means." (D.I. 657 at 9–10.) They argue that the doctrine of prosecution disclaimer is applicable here, pointing to several allegedly disavowing statements made by PMC during reexamination. (*Id.*) The court believes that at least PMC's statements made in attempting to overcome the Pitroda prior art present an unambiguous disavowal:

> Claims 1-7 set forth a switch means that directs or outputs selected portions of programming received by a receiver to various output devices. As disclosed in the specification of the '414 patent, a computer monitors the incoming programming by means of decoders. By comparing meter-monitor information with programming schedule information, the computer can determine when and on what channel or channels the station should transmit each received unit of programming. Thus, based on detected control signals the computer selects which portions of received programming are to be recorded and which portions of received programming are to be transmitted on which channels and causes the switch to rout selected portions of the received programming to the proper device. There is no such equivalent teaching in the disclosure of Pitroda's telephone switching system.

(Reexam No. 90/011,016, Sept. 29, 2010 Owner Statement at 5; JA002098.) As such, the court attaches this condition to the corresponding structure.

means" and "controlling the directing functions of said matrix switch means," the corresponding structure is signal processor 71 and cable program controller & computer 73, which is shown in Figures 6A and 6B, and which the specification describes at 184:1-64 to be configured to use the detected control signals to operate the switch means. With respect to "controlling . . . the transfer functions of said storage/transfer means," the corresponding structure is controller 20 of signal processor 71, which is shown in Figures 2 and 2D, and which the specification describes at 18:46–19:29 and 182:63–183:12.[8]

6. The term "storage/transfer means for receiving and storing said control signals and for transferring at least a portion of said control signals for further

[8] For substantially the same reasons discussed in reference to the "first processor means" term, the court believes these terms should be construed pursuant to § 112, ¶ 6. The court also finds that the parties' agreed upon functions are appropriate and supported by the claim language.

With regard to corresponding structure, the parties chose to organize their proposals differently, with the plaintiffs providing only one list of structure and the defendants dividing their proposal into corresponding structure for the "controlling the output/directing functions of the matrix switch means" function and separate corresponding structure for the "controlling . . . the transfer functions of said storage/transfer means" function. For the sake of clarity, the court employs the defendants' organization above.

The parties correctly agree that corresponding structure for the "controlling the output/directing functions of the matrix switch means" functions includes signal processor 71 and cable program controller & computer 73. The plaintiffs, however, add the following structure to their proposal: "PRAM controller 20 as depicted in FIG. 2, or microcomputer 205 or signal processor 200 (both depicted in FIG. 7)." (D.I. 654-1 at 9.) The court understands the plaintiffs to be claiming that PRAM controller 20 is corresponding structure only for the next function—"controlling . . . the transfer functions of said storage/transfer means"—which leaves just microcomputer 205 and signal processor 200 in dispute here. The court finds that these disclosures cannot represent corresponding structure. Claims 5 and 7, like Claims 1 and 2, are not directed toward the ultimate receiver station depicted in Figure 7, and the requisite "clear link" thus cannot exist. (D.I. 662 at 9–10.) Finally, the court attaches the condition that the corresponding structure "be configured to use the detected control signals to operate the switch means" based on the same prosecution disclaimer explained above in reference to the "second processor means for controlling the output [directing] function of said switch means" term.

Corresponding structure for the "controlling . . . the transfer functions of said storage/transfer means" function is controller 20 of signal processor 71, which is shown in Figures 2 and 2D, and which the specification describes at 18:46–19:29 and 182:63–183:12. While the organization of the parties' proposals unnecessarily confuses the matter, the court believes the parties correctly agree as to this basic structure. (D.I. 675 at 69.) The defendants, however, seek to attach the condition that the corresponding structure "be configured to cause the storage/transfer means to store control signals and, as a separate step, selectively transfer at least a portion of the control signals for further processing, e.g., decryption." Given its below conclusions regarding the "storage/transfer means" limitation, the court rejects this addition.

processing" is construed pursuant to 35 U.S.C. § 112, ¶ 6. The claimed functions are "receiving and storing said control signals" and "transferring at least a portion of said control signals for further processing." The corresponding structure is buffer/comparator 8 and controller 12, which is shown in Figures 2 and 2D, and which the specification describes at 18:46–19:29 and 182:63–183:12.[9]

7. The term "causing said memory means to transmit selected information of said selected data unit at a selected time" and the term "causing a switch associated with said intermediate input means to connect the output of a player associated

[9] The parties rightly agree that this term should be construed pursuant to § 112, ¶ 6 and correctly identify the claimed function. The only disputes concern the corresponding structure. The plaintiffs seek to include PRAM controller 20, but the court cannot discern the necessary "clear link" between this disclosure and the recited function. The plaintiffs fail to adequately brief this point and, at oral argument, chose simply to note that "[t]he parties primarily agree on corresponding structure." (D.I. 675 at 70.) The court thus rejects plaintiffs' attempt to include controller 20.

The defendants also seek to attach the condition that the corresponding structure "be configured to receive and store control signals and to also selectively transfer at least a portion of the control signals for further processing, for example decryption." The plaintiffs correctly note that a construction of a means-plus-function limitation generally should not "import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function." *Wenger Mfg., Inc. v. Coating Machinery Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001). Yet, *Wenger* itself indicates that this rule might be overcome through prosecution disclaimer—in that case, the Federal Circuit expressly considered whether amendments made by the patentee during prosecution required the district court's more narrow construction before ultimately concluding that the patentee distinguished prior art on unrelated grounds. *Id.* at 1235–36; *see also Ballard Med. Prods. v. Allegiance Healthcare Corp.*, 268 F.3d 1352, 1359 (Fed. Cir. 2001) (applying doctrine of prosecution disclaimer to bar inconsistent assertion that an accused structure was the statutory "equivalent" of the corresponding structure); *Signtech USA, Ltd. v. Vutek, Inc.*, 174 F.3d 1352, 1357 (Fed. Cir. 1999) (same).

Here, the defendants seek to invoke the doctrine of prosecution disclaimer, pointing to statements made by PMC during reexamination in which the patent owner sought to distinguish the Niessner and Intel prior art. In defending Claim 6, PMC argued:

> The claim requires that the storage/transfer means store the control signals and then be able to transfer a portion of the control signals for further processing—two separate functions. An example of distinct storage and transfer functions is where data is stored in a buffer pending a decision regarding whether and/or where to transfer the data for further processing. In such a system, the data buffer is controlled so that portions of a signal are transferred when additional processing, such as additional decryption, is required. This is precisely what is disclosed in the specification.

(Reexam No. 90/011,744, Nov. 2, 2011 Owner Statement at 15; JA002142.) The court does not read this as a sufficiently unambiguous disavowal. In stating that "[t]he claim requires that the storage/transfer means store the control signals and then be able to transfer a portion of the control signals for further processing," PMC merely restated the claim language—it said nothing about "selective" transfer. (*Id.*) The concept of selectivity only enters when PMC goes on to discuss one *example* of separate storage and transfer functions. (*Id.*)

with said recorder to at least one selected processor at a selected time" are construed to have their plain and ordinary meanings.[10]

The '654 Patent

1. The term "member information" is construed to mean "information about a member of the program audience, not information about the member's receiver station, unless, of course, information about the member's receiver station also happens to be information about the member."[11]

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[10] The parties primarily dispute whether the "at a selected time" language in these terms requires, as the defendants argue, that the time must be "determined in advance." The court believes the defendants' proposed construction is unnecessary. First, the defendants' apparent prosecution disclaimer argument is unpersuasive. (D.I. 657 at 12.) As the plaintiffs note, the only relevant reexamination statements employing the word "predetermined" are unilateral statements of the Examiner. (D.I. 664 at 14; Reexam No. 90/006/838, Dec. 23, 2005 Office Action at 71; JA001851; Reexam No. 90/006/838, Mar. 23, 2007 Advisory Action at 4; JA001961.) PMC's cited reexamination statements reveal only that the '414 Patent's claims cover "spot commercials" transmitted "at a selected time"—they do not indicate that a time must be "predetermined" to be "selected." (Reexam No. 90/006/838, Appeal Brief at 29; JA001923.)

Defendants also urge that their "determined in advance" construction comports with the "plain language of the term" and is consistent with several statements in the specification. (D.I. 657 at 12.) Their suggested inference from the supposed "plain language of the term," however, conflicts with the dictionary definitions offered by the plaintiffs, (D.I. 656 Ex. F–H), and the referenced specification statements nowhere require that the time be predetermined.

The court believes this term should be given its plain and ordinary meaning. "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (internal citations omitted).

[11] Though the parties largely agree as to the above construction, the defendants seek to add the condition that "[m]ember information does not include signals indicating the subscriber's selection of a program/channel or the acceptance of such selection." (D.I. 657 at 13.) In support of this position, the defendants offer a prosecution disclaimer argument based largely on the following reexamination statements made by PMC:

> The passages from Block '884 that the Examiner cites relate to subscriber control unit 30, which is a remote control type device that does not appear to be capable of inputting member information that is processed. Rather, it is only used to input channel selections. Under such a reading, the "member information" would have to be the signals indicating the subscriber's selection of a program/channel or the accept signal ACC. This deficiency carries through to other claim elements such as the claimed first memory means because the passages cited by the Examiner do not disclose a first memory means for storing "said input information." Further, the Examiner appears to rely on Block '884 code signals as corresponding to the claimed "at least one instruction." Such code signals, however, are for descrambling programming rather than operating instructions for processing input information as required by claim 10. The passages of

2. The term "outputting data that include additional information besides said input information" and the term "assembling output records that include additional information besides said input information" are both construed such that the output data/output records are required to include both input information and additional information.[12]

Block '884 cited as corresponding to the claimed "processor means" merely describe the unscrambling of the incoming program signal, without any reference to "said input information."

(Merged Reexam Nos. 90/006,606, 90/006,703, 90/006,839, Response to July 11, 2005 Office Action at 36–37; JA002562–63.)

The court rejects this disclaimer position. As noted above, in order for the court to narrow the meaning of a claim term based upon the doctrine of prosecution disclaimer, the allegedly disavowing statements must be clear and unambiguous. *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005); *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003). PMC's statements during reexamination cannot clear that high hurdle. The quoted reexamination arguments, when taken together, can be fairly interpreted as distinguishing the Block prior art due to its supposed lack of a "first memory means" or a proper "processor means." The closest PMC comes to disavowal—and the point emphasized by the defendants—is the statement that "[u]nder [the Examiner's allegedly incorrect reading of Block '884], the 'member information' would have to be the signals indicating the subscriber's selection of a program/channel or the accept signal ACC." (JA002562.) This sentence, however, must be understood in its broader context. PMC had just observed that "[t]he passages from Block '884 that the Examiner cites relate to subscriber control unit 30, which is a remote control type device that does not appear to be capable of inputting member information *that is processed*." (*Id.* (emphasis added).) PMC might well have been arguing that (1) the Block '884 subscriber control unit 30 could only input channel selections, (2) in attempting to relate Block '884 to Claim 10, the claimed "member information" would thus be limited to "signals indicating the subscriber's selection of a program/channel or the accept signal ACC," and (3) Block '884 failed to disclose Claim 10's required "first memory means" for storing such channel selection "input information" or the necessary "processor means" for processing such channel selection information.

PMC's statements distinguishing the Eskin prior art, (JA002563), and the Okubo prior art, (JA002564), fail for similar reasons—in each case, the patent owner challenged the ability of the prior art to perform the various elements of Claim 10 without explicitly limiting the scope of "member information."

[12] The defendants argue (1) that these claim elements require the output data/output records to include both "said input information" and "additional information," and (2) that the input information must be passed to output unchanged. The defendants rely heavily on statements made by the PTO during reexamination. In a 2006 Office Action, the Examiner noted that the output data of similar Claim 7 includes:

1) said "input information"; and

2) "additional information".

That is, as recited, the "processor means" simply passes the "input information" to its output unchanged. That is, the recited processing that is performed by the recited processing means on the recited "input information" results in nothing more than the outputting, i.e., from the recited processing means, of data that includes said "input information" and includes "additional information."

(Merged Reexam Nos. 90/006,606, 90/006,703, 90/006,839, Feb. 28, 2006 Office Action at 3–4; JA002608–09.) Later, in its 2007 Notice of Intent to Issue Ex Parte Reexamination Certificate, the Examiner also referred to data being outputted "from the 'processor means' that includes said 'member information' and additional information.'" (Merged Reexam Nos. 90/006,606, 90/006,703, 90/006,839, NIIRC at 3; JA002821.)

The '277 Patent

1. The term "reprogrammable system" is construed to have its plain and ordinary meaning.[13]

2. The term "reprogram" is construed to mean "to replace, rewrite, or revise the preexisting operating instructions controlling the operation of the processor and stored in the memory device."[14]

The court declines to adopt the latter of the defendants' proposed additions to construction. As discussed with regard to several of the above terms, prosecution disclaimer demands a clear and unambiguous disavowal of claim scope. *Salazar*, 414 F.3d at 1347. A patent owner's silence in the face of an examiner's unilateral statement does not rise to that level. *Id.* Here, the defendants' position that the input information must be "unchanged" is supported only by the PTO's unilateral statement in the 2006 Office Action, an insufficient basis for disclaimer. The court also notes that a preferred embodiment demonstrates that the input information need not be passed to output unchanged. (D.I. 655 at 13–14; JA000598–99.) "A claim interpretation that reads out a preferred embodiment 'is rarely, if ever, correct and would require highly persuasive evidentiary support.'" *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1349 (Fed. Cir. 2003) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996)).

On the question of whether these claim elements require the output data/output records to include both "said input information" and "additional information," the court does not believe the parties are actually in conflict. (D.I. 664 at 10; D.I. 675 at 120.) The plaintiffs addressed only the "unchanged" point at oral argument, (D.I. 675 at 97–99, 120), and acknowledged in their Responsive Brief that "[i]f [requiring that the output data/output records include both input information and additional information] were all Defendants' proposal required, the parties may not have a dispute," (D.I. 664 at 10). Given this understanding and what the court interprets to be the plain meaning of the claim terms at issue, the court adopts this portion of the defendants' proposed construction.

[13] The defendants urge the following construction of this two-word term: "The entire claimed system must be reprogrammable. That is, it is essential that the overall system structure be reprogrammable for the claimed system to function. This is accomplished by downloading new operating instructions that change an already existing system and its operating instructions." (D.I. 657 at 15.) The defendants suggest that such a construction is necessary given allegedly disavowing statements made by PMC during reexamination. (*Id.*) The court, however, believes this construction is uncalled for—nothing in the plain and ordinary meaning of the term "reprogrammable system" conflicts with the first two sentences of the defendants' proposal. Indeed, the parties expressly agree that the entire claimed system must be reprogrammable. (D.I. 655 at 17; D.I. 662 at 15.) The court also rejects the final sentence of the defendants' proposed construction, as the method by which the reprogramming occurs is more properly addressed in the final limitation of Claim 12.

[14] The court declines to fully adopt either of the proposed constructions relating to this term. As with several of the terms below, the parties insisted on different organizational approaches to their claim construction arguments. The defendants maintain that the phrase "processor loading said operating instructions . . . into said memory device to thereby reprogram said processor, said operating instructions including instructions to cause said processor to cause said detector to detect different signals," should be construed as a whole, and offers the following lengthy construction:

> The processor must store in a memory device the new operating instructions to replace, rewrite, or revise the preexisting operating instructions controlling the operation of the processor. Such

3. The term "operating instructions" is construed to have its plain and ordinary meaning.[15]

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reprogramming cannot occur on an empty device devoid of existing operating instructions. Systems using non-writable memory such as read-only memory (ROM) to store processor operating instructions are not within claim 12's scope.

The claim element requires actually loading into the memory device new operating instructions that include instructions causing the processor to in turn cause the detector to detect different signals (i.e., signals that would not have been detected without such reprogramming).

(D.I. 657 at 16.) The plaintiffs, on the other hand, argue that this phrase should be divided into individual terms for construction. (D.I. 655 at 18.) With regard to the term "reprogram," the plaintiffs suggest the construction "to rewrite or revise programming stored in non-volatile memory." (*Id.* at 16.)

For the sake of clarity here and to avoid the potential for jury confusion at a later date, the court adopts the plaintiff's proposed organization for the purposes of this Order. The court wishes to note, however, the unfortunate effects of the parties' inability to reach an agreement on this organizational point. The oral and written arguments surrounding these claim terms were disjointed and often unresponsive to opposing positions, and the court's task was made unnecessarily difficult.

A careful reading of the parties' arguments suggests that they actually agree on the above construction. The majority of the construction matches a portion of the defendants' proposal, which the defendants acknowledge corresponds with the term "reprogram." (D.I. 657 at 16 ("The first part of defendants' proposed construction of the recited phrase (a portion of the last element of claim 12), is a straightforward read of the claim language, clarifying that to 'reprogram said processor' requires that the new operating instructions replace, rewrite, or revise the pre-existing operating instructions controlling the operation of the processor.").) Additionally, the plaintiffs, either at oral argument or in their written submissions, agreed to almost every element of this construction. (D.I. 664 at 15; D.I. 675 at 124–25.)

The only matter truly in dispute is the plaintiffs' contention that "reprogram" can be limited to storage in non-volatile memory. The defendants point out that the '277 Patent discloses using a volatile form of memory, random-access memory (RAM), in a preferred embodiment. (D.I. 657 at 17; JA000821.) Since "[a] claim interpretation that reads out a preferred embodiment 'is rarely, if ever, correct and would require highly persuasive evidentiary support," the court rejects this element of the plaintiffs proposal. *Amgen Inc.*, 314 F.3d at 1349 (quoting *Vitronics Corp.*, 90 F.3d at 1583).

[15] The court agrees with the plaintiffs that this term, read in the broader context of Claim 12, carries its plain and ordinary meaning and requires no further construction. As noted above, "[i]n some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314 (internal citations omitted).

The defendants propose that "operating instructions" be construed to mean "commands that a processor executes to control the system's basic functionality, such as managing computer hardware, input/output functions, and the carrying out of application software. Instructions that merely install application software are not operating instructions." (D.I. 655 at 18.) In taking this position, the defendants fall into the same trap as with the "reprogrammable system" term above and attempt to incorporate statements from the prosecution history into the claim term's construction where there is no need. While the doctrine of prosecution disclaimer can surely work to narrow claim scope and restrict claim language to less than what it would otherwise cover, it is not properly invoked to clarify minute details where the patent owner's statements are consistent with the plain meaning of the claim terms.

4. The term "said memory device" is construed to mean "the memory device operatively connected to said processor for holding operational instructions addressed to said processor, where the memory device cannot use read-only memory (ROM) to store processor operating instructions."[16]

5. The term "different signals" is construed to mean "signals that would not have been detected without such reprogramming."[17]

6. The term "[selected] television program transmission" is construed to mean "a [selected] single transmission enveloped within a single carrier wave."[18]

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[16] The plaintiffs propose that term be construed as "a non-volatile memory device that is capable of being reprogrammed." Given the preferred embodiment discussed in reference to the "reprogram" term above, this construction is improper.

The first portion of the court's construction tracks the plain meaning of the claim language, while the second half recognizes the disavowal made by PMC during reexamination. PMC, in its March 19, 2010 Request for Rehearing, stated, "[A]s the preamble requires, the claimed memory device of the invention must be reprogrammable. Systems using non-writable memory such as read-only memory (ROM) to store processor operating instructions are outside of this claim's purview." (Merged Reexam Nos. 90/006,563 and 90/006,698, Mar. 19, 2010 Request for Rehearing at 13; JA004880.)

As noted repeatedly above, an alleged disavowal of claim scope must be clear and unambiguous. Given this high bar, the court declines to give this statement the exclusionary scope urged by the defendants. (D.I. 662 at 18 (arguing) that defendants' construction excludes "systems . . . in which ROM is used 'to store processor operating instructions.'").) Rather, in light of the first sentence of PMC's quoted statement, the court views the disavowal as excluding only the claimed memory device using ROM to store processor operating instructions. (D.I. 657 at 19.)

[17] This is the plain meaning of the term "different signals" when Claim 12 is read as a whole. The parties agree on this construction. (D.I. 655 at 18 n.67; D.I. 662 at 18–19.)

[18] This construction comports with statements in *Personalized Media Commc'ns, LLC v. ITC*, 161 F.3d 696 (Fed. Cir. 1998) (hereinafter *PMC v. ITC*). In that appeal, the Federal Circuit noted that the phrase "television program transmission" in Claims 6 and 7 of the '277 Patent meant "a single transmission enveloped within a single carrier wave," and that "[t]he specification does not suggest that a 'television program transmission' can be a multi-channel transmission." *Id.* at 707.

The defendants propose that this phrase be construed to mean "a single channel transmission of a selected television program." (D.I. 657 at 19.) They argue that, in *PMC v. ITC*, "the Federal Circuit rejected PMC's contention that the claimed ''television program transmission' can be a multi-channel transmission,' thereby limiting the term to a transmission carrying only one television channel," and that "[p]laintiffs' construction inappropriately leaves room for argument that a single transmission carrying multiple channels (i.e. programs) is within the scope of the claim." (*Id.*) The "single channel" language of their construction is premised on this interpretation. (*Id.*) The court, however, understands the *PMC v. ITC* court to have used "multi-channel transmission" to mean "multi-carrier transmission," leaving the defendants' particular multiple channel issue unresolved and their proposed construction language unnecessary. *See* 161 F.3d at 707.

7. The term "location" is construed to mean "some part or portion of a television program transmission."[19]

Dated: April 1, 2013

CHIEF, UNITED STATES DISTRICT JUDGE

[19] The defendants urge a narrower interpretation of this term based on the Federal Circuit's decision in *PMC v. ITC* as well as examples provided in the specification, which the defendants view as being coextensive with the alleged invention. (D.I. 657 at 19–20.) A careful reading of *PMC v. ITC*, however, reveals that the Federal Circuit did not actually endorse the defendants' construction. Rather, the court observed:

> Without going into unnecessary detail, we note that the term 'location' in claims 6 and 7 refers to the position of a control signal within a 'television program transmission,' . . . The ALJ correctly construed the term 'location' in accordance with the examples provided in the specification, *viz.*, a line, or lines, or portion of a line in the vertical interval of a television video transmission, or a frequency within the audio range of a television transmission, *see* '277 patent, col. 9, l. 61 to col. 10, l. 16, examples which involve only single channel transmissions.

161 F.3d at 707. As Special Master Peterson observed in his Report and Recommendation on Claim Construction in *Personalized Media Commc'ns, LLC v. Scientific-Atlanta, Inc.*, 02-CV-824-CAP (N.D. Ga.), "[I]t is not clear that the court actually construed the term 'location' to mean 'a line, or lines, or portion of a line in the vertical interval of a television video transmission, or a frequency within the audio range of a television transmission.'" (JA005455.) Indeed, the Federal Circuit merely observed that the ALJ's construction was both correct and consistent with the examples provided in the specification and then proceeded to list some of those examples. *See PMC v. ITC*, 161 F.3d at 707. "While agreeing with the ALJ's construction, the Federal Circuit did not, it seems, articulate what that construction was, but rather noted that it was 'correct' and that it was 'in accordance' with the examples given in the specification." (JA005455.)

The ALJ's actual construction of the term "location" in Claim 6—the construction the the Federal Circuit referred to as "correct"—was "some part or portion of a 'television program transmission.'" (JA005456–60 (Special Master Peterson explaining the ALJ's construction).)